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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/286,794	04/06/1999	MARK E. BAER	28076/SV703A	5439

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EXAMINER

BLOUNT, STEVEN

ART UNIT

PAPER NUMBER

3726

DATE MAILED: 05/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

89/286,794

Applicant(s)

Baer et al

Examiner

Blount

Group Art Unit

8726

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

☒ Responsive to communication(s) filed on 3/1/02

☒ This action is FINAL.

- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 29-48 is/are pending in the application.
- Of the above claim(s) 39-48 is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 29-38 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____.
 - ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 29-32 and 35-38 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. patent 2,973,214 to Bates et al in view of U.S. patent 6,079,958 to Qandil.

With regard to claim 29, Bates teaches motor shaft 12 with a non-circular cross section interengaged with a shaft extension which is also non-circular and rotates with the motor shaft and is installed into a lower assembly (driven device). Bates does not, however, teach installing a fan impeller onto the motor shaft.

Qandil teaches a motor shaft 30 with fan impeller 46 which is used to cool the motor. It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the shaft 12 in the "driving device" (see figure 1) of Bates et al with a fan impeller, in light of the teachings of Qandil, in order to provide a means to cool the motor of Bates et al.

With regard to claim 30, the shape of the surface geometry is a matter of design choice, and one of ordinary skill in the art would have found it obvious to substitute a hexagonal shape for the square or octagonal shapes of Bates et al presented in figures 1 and 3.

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With regard to claim 31, see figure 3.

With regard to claim 32, note slit 18.

With regard to claims 35-36, the “driven device” of Bates would typically include pump impellers and bearings.

With regard to claims 37-38, note the rejection above, and further note that while a powdered metal bearing and roller ball bearing is not taught, Official Notice is taken that powdered bearings and roller ball bearings are well known in the art.

3. Claims 33-34 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. patent 2,973,214 to Bates et al in view of U.S. patent 6,079,958 to Qandil as applied to claim 29 above, and further in view of U.S. patent 5,489,187 to Ray.

Bates et al/Qandil teach the invention as described above, but do not teach tightening a retainer onto the motor shaft and into abutment with the fan impeller. This is taught in Ray. See member 38. (Note that the shape of the retainer is suggested to be a hexagonal one, and that it would be obvious to use this shape for the retainer even if a “round” one was intended by Ray). It would have been obvious to one of ordinary skill in the art at the time of the invention to have tightened a retainer onto the motor shaft of Bates et al/Qandil, in light of the teachings of Ray, in order to assure a tight fit between the motor shaft and fan impeller.

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Response to Arguments

4. Applicant's arguments with respect to the above claims have been considered but are moot in view of the new ground(s) of rejection.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Contact Information

6. Official documents related to the instant application may be submitted to the Technology Center 3700 mail center by facsimile at (703) 872-9302 (responses before final) and 703-872-9303 (responses after final). Should Applicant desire to submit a **DRAFT** response to the Examiner by facsimile transmission, then Applicant should contact the Examiner at the number below for instructions concerning the transmission

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of DRAFT documents. Applicant is reminded to clearly mark any facsimile transmission as "DRAFT" if it is not to be considered as an official response. Examiner Blount may be contacted at the Patent Office between the hours of 9:00 am to 5:30 P.M. Monday through Friday.

7. Any inquiry concerning this communication should be directed to Examiner Steven Blount at telephone number (703) 305-0319.

SB

5/7/02



P. W. Echols
Primary Examiner